

Corpus Christi water contamination continues, some sick

[Matt Woolbright](#), Corpus Christi Caller-Times 4:04 p.m. CST December 18, 2016

Four days into a water contamination emergency, city leaders acknowledge they don't know how much of a toxic chemical leaked into the public water system and people are reporting they are getting sick.

The city first reported Wednesday that the chemical, Indulin AA-86, leaked from a mixing tank in the industrial district and that a maximum of 24 gallons may have mixed with the water supply.

The Caller-Times reported a day later that the city also received dirty water calls on Dec. 1, Dec. 7 and Dec. 12 from the backflow contamination location. A sheen in the water turned out to be a mix of hydrochloric acid and Indulin, an asphalt emulsifying agent.

Valero, who leased the property to a company where the leak occurred, issued a statement Saturday saying its first reports of water quality concerns from an administrative building it owns came Nov. 23, but the water cleared up after being flushed.

"For a couple of weeks, there may have been a chemical that nobody knew," Mayor Dan McQueen said Saturday during a daily briefing. "We don't know if they ever breached our water system or not."

The questions around how much, if any, of the toxic solution mixed with the public water supply and for how long are critical in assessing the public's risk in the city's critical water contamination crisis.



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Mayor Dan McQueen talks to the media during a news conference Saturday, Dec. 17, 2016, at City Hall in Corpus Christi. (Photo: Gabe Hernandez/Caller-Times)

The Texas Commission on Environmental Quality issued an update indicating that “within the last 24 hours, there have been four unconfirmed reports of possibly related symptoms from prohibited water use by people living in Corpus Christi.”

The residents reported skin and intestinal problems. Those are symptoms of Indulin exposure but those reports have not been confirmed as Indulin exposure.

Citizens concerned about their drinking water quality should contact TCEQ at 888-777-3186. McQueen said that city teams are being sent to investigate the water system and collect samples whenever anyone reports symptoms they believe are related to the water contamination.

Dr. Sam Mannan, a world-renowned expert on safety in the chemical processing industry, said Indulin AA-86 can be toxic to skin and organs.

“Once in the body, it can target the organs,” Mannan said. “At what concentrate is the problem. Clearly you don’t know when you don’t know how much has leaked into the system.”

Mannan, director of the Mary Kay O’Connor Process Safety Center at Texas A&M, said the city, TCEQ and the U.S. Environmental Protection Agency were taking a conservative approach to the emergency when they issued the citywide water use ban on Dec. 14.

“Until the batch of water that is contaminated goes away, there will be a certain potential that it could be harmful to humans,” Mannan said. “What matters is how long it was in the system and how much of the chemical.”

He said he doesn’t think there are long-term health effects of exposure to Indulin.

Ergon Asphalt and Emulsions Inc. issued a statement Saturday evening that confirmed Indulin AA-86 and hydrochloric acid did escape the confines of a mixing tank it operates in the industrial district.

"A soap solution, which is comprised of approximately 98 percent water and 2 percent Indulin AA-86 and hydrochloric acid, back flowed into the separate water line within the Valero terminal," the statement read.

The statement did not indicate when the backflow may have occurred, or how much of the chemical is believed to have seeped back into the system.

City leaders, and the company's statement, have said the company is cooperating with the investigation. Company officials also helped the city connect with the chemical's manufacturer so tests could be developed based on the chemical's unique composition.

The city's standard water quality testing would not have detected the chemical because it's not a common contaminant of public water systems, city staff has said.

McQueen said the risk to residents is "from zero to infinity," because the city knows so little about what actually occurred. He said officials should know more about the scope of contamination after tests come back Sunday, but the timeline is fluid because of the unprecedented nature of the contamination.

The city has sent 30 samples as part of the latest round of testing. An EPA lab in Houston is conducting the analysis.

City leaders were able to lift water restrictions for Calallen, Flour Bluff and Padre Island because earlier analysis of the water system's flow and suspected contamination indicated hazardous water from the industrial district could not have reached those areas, McQueen said.

For the rest of the city, however, there's a problem.

The city was able to modify water use restrictions in Zone 2, which is everything south of South Padre Island Drive, late last week. Residents can use the tap water to bathe, but are still advised not to use water for drinking or cooking. The new round of test results, expected Sunday, should help determine the condition of the water for consumption.

"That's why we can't drink it yet — because we're not that confident because of that 14-day timeline that we're all concerned about right now," McQueen said.

"I won't know where we're going for zone 2 or 3 until we see that data," he added.

McQueen reiterated Saturday that the city will look to recoup costs for the water ban from the party responsible. The city has not officially named Ergon Asphalt and Emulsions as the culprit, but City Councilwoman Carolyn Vaughn did so Thursday.

McQueen replied, "that's a legal issue," when pressed by a reporter for the company's name.

Valero's statement indicates that city requested a timeline of what it knew about the contamination.

"While we are not the source of the contamination, we are actively assisting the City and other agencies in their efforts to restore water to the entire city," the Valero statement read.

Assistant City Manager Mark Van Vleck, who oversees the water department, said a flushing schedule to clean out three water tanks in Zone 3 is continuing on schedule, and water quality tests from around the city have continued to return within acceptable ranges.

Van Vleck also provided more insight into why the city did not contact the Texas Commission on Environmental Quality after dirty water was reported at the location on Dec. 1 and Dec. 7. The first two reports were for discolored water that quickly cleared up, which is a common symptom of rust in the pipes, he explained.

"It looked different and there was a smell," Van Vleck said. "The third time was the first time it was different than a normal dirty water complaint."

At that point, the city began investigating the private side of the pipes and made the report to state environmental officials Wednesday. The call to state officials followed a resident notifying the city about an oily sheen in water coming out of a faucet at a building near the mixing tank.

After days of uncertainty about what led to the contamination, officials with the TCEQ confirmed that their initial review Wednesday found there had been a backflow issue at the mixing tank on Dec. 7.

McQueen implied Saturday that the mixing tank did not have a backflow preventer to ensure chemicals stored or mixed there could not seep into the public drinking water system.

"Had the third party had a backflow preventer ... they wouldn't have had a problem and we wouldn't be in in this situation," McQueen said.

Valero timeline

Nov. 23: Valero employees at the asphalt terminal building notice brown water at a faucet. Pipes are flushed and water clears.

Dec. 1: Valero employees again notice brown water. First report to the city, which responds and flushed the pipes. Water clears up.

Dec. 2: Valero contacts Ergon about issue to ask if it may be linked to the company's operations.

Dec. 7: Valero employees notice dirty water for a third time. City crews again flushed the pipes and the problem dissipated.

Dec. 8: Valero contacts Ergon a second time.

Dec. 12: Valero employees notice "milky, sudsy water" at their faucet for a second time (Dec. 7), and contact the city. City crew flushes pipes and water clears up. Valero again contacts Ergon about issue.

Dec. 13: Corpus Christi sends crews to Valero's facility to investigate issues and work to clear more pipes.

Dec. 14: The City sent personnel again and spoke with Valero and Ergon personnel. * The city issued its citywide water use ban 10:25 p.m. Dec. 14.

Source: Valero